

REMARKS

Claims 1 through 39, 41 through 45 and 47 through 51 remain in this application for active consideration. Claims 40 and 46 have been cancelled.

In the presently outstanding office action, claims 1 through 16, 19 through 25, 27, 28, 43, 45, 46 and 48 through 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WAUGH (US 4,936,045) in view of WHEELock (US 4,516,980); Claims 26, 29 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over WAUGH in view of WHEELock and SCHAPIRO (US 4,618,346); Claims 17, 18 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over WAUGH in view of WHEELock and SCHAPIRO and further in view of SMIT (US 4,582,512); Claims 33, 34 and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over WAUGH in view of WHEELock (US 4,516,980) and SCHAPIRO and SMIT and further in view of MASSEY (US 4,364,740); Claims 29, 30, 31, 44 and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over WAUGH in view of WHEELock and KINDIG (US 4,743,271); and Claims 36 through 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over WAUGH in view of WHEELock and KAMINO (US 4,424,062). Applicants respectfully traverse the stated rejections and submit that in view of the foregoing amendments and the following remarks, claims 1 through 39, 41 through 45 and 47 through 51 are patentable over the cited references and that the application is otherwise in condition for allowance.

Turning now to the specific art rejections, the examiner has rejected claims 1 and 45, the only presently pending independent claims, on the basis that the invention claimed thereby is obvious from WAUGH in view of WHEELock. In connection with these rejections, the examiner's argument seems to be that WAUGH discloses the claimed invention with the exception of the "hydrothermal washing step" (step (f) of claim 1 and step (3) of claim 45). The examiner further considers the disclosure of WHEELock as remedying this deficiency of WAUGH. But it is applicant's position that WHEELock does not disclose a "hydrothermal washing step". Accordingly,

applicant submits that claims 1 and 45 are novel and non-obvious in light of WAUGH combined with WHEELLOCK. It follows then that the rejected dependent claims, which are all dependent on patentable claim 1 or patentable claim 45, are also novel and non-obvious. In further support of the patentability of the dependent claims, applicant submits that not one of the documents cited solely against the dependent claims (i.e., SCHAPIRO, SMIT, MASSEY K INDIG, and KAMINO) remedies the deficiency of WAUGH as regards the "hydrothermal washing step." That is, applicant submits that all of the claims remaining in this application for active consideration are novel and non-obvious in light of the cited documents.

The amendments set forth above, particularly the amendments to claims 1 and 45, are intended to more clearly define the "hydrothermal washing step." Other amendments are made either as a consequence of the amendments to claims 1 and 45, or to correct or clarify.

In the response to the Office Action dated September 29, 2008, the applicant submitted that the invention consisted of 3 primary leaching/washing steps: (1) a caustic hydrothermal process step **[steps (a), (b) and (c) of claim 1; step (1) of claim 45]**, (2) an acid wash step **[steps (d) and (e) of claim 1; step 2 of claim 45]**, and (3) a further hydrothermal wash step **[step (f) of claim 1; step (3) of claim 45]** conducted on the filtered product of step (2) in either an aqueous polar organic solvent or aqueous organic solvent. In this context, hydrothermal is to be taken to mean at elevated temperature and a pressure sufficient to prevent boiling. These steps are present in both independent claims 1 and 45. As a preliminary point of distinction, applicant reiterates that none of the cited documents, taken alone, disclose a process having the 3 claimed steps. Further, applicant asks the examiner rhetorically how one or more documents disclosing a 2-step process (such as those cited) can, either alone or in combination with another document, render obvious a 3-step process when (a)

none of the documents disclose, teach or suggest a 3-step leaching/washing process, and (b) none of the documents teach the 3rd step (i.e., in context to some broadly disclosed process).

In this particular case, the examiner considers WAUGH to provide steps (1) and (2) as defined above, and WHEELock to provide step (3). In response, applicant submits that it is only with hindsight that the examiner was able to pick a portion of WHEELock, label it step (3), and attach it to steps (1) and (2) from WAUGH, and that the person of ordinary skill would not (and in any case could not, for the reasons set forth below) have combined WAUGH and WHEELock to get the claimed 3-step process.

It is only if WHEELock makes some reference to step (1) and (2), or WAUGH makes some reference to step (3), that such a combination could be considered obvious. Neither WHEELock nor WAUGH makes such a reference. WHEELock discloses only a pre-oxidation step (which is not relevant to the claimed process), followed by a hydrothermal alkali step (which is akin to step (1) of the present invention), followed by an acid step (col. 5, ll. 1-12). No further acid step is disclosed by WHEELock. If the acid step of WHEELock is akin to step (3) of the present invention, where is step (2) taught and how is it obvious to combine WAUGH and WHEELock to arrive at the predictable combination of steps (1) to (3) of the present invention? If the acid step of WHEELock is akin to step (2) of the present invention, where is step (3) taught?

Applicant submits that the acid step of WHEELock cannot be akin to both step (2) and (3) of the present invention, and in any case is not akin to step (3) of the present invention, for the following reasons. Firstly, the acid step of WHEELock is a single step. In contrast, the 2 acid steps of the present invention are separated and distinguished by the conduct of a filtration between them, and by the differing operating conditions at which they are conducted. It is not obvious to select one step from the numerous steps disclosed in WHEELock and merge it with the 2 steps of WAUGH. Further,

such combining of prior art elements would not yield predictable results. Secondly, WHEELock teaches only the use of a mineral acid in the acid step (column 3 lines 5354, column 5 line 4, and Table A). In contrast, step (3) of the present invention uses only organic acid (or polar organic solvent). In this sense, the acid step of WHEELock is more akin to step (2) of the present invention, which preferably uses sulphuric acid (see claims 19 and 20 or paragraph [0092] of the present specification). It is not possible to replace the mineral acid of WHEELock with an organic acid; this simply is not taught. Further, it is not possible to replace the organic acid of step (3) of the present invention with a mineral acid, as they are not equivalent, and the same effect is not observed in terms of mineral content removal. Such simple substitutions of one known element for another would not lead to predictable results. Finally, assuming the acid step of WHEELock to be most closely related to step (3) of the present invention, applicant submits that the acid step of WHEELock is not hydrothermal because it is not conducted at a temperature of greater than 150 °C as required by claims 1 and 45. Per contra, according to WHEELock, no temperature above 100 °C is disclosed, and indeed it is stated that the "acid extraction should be carried out at a temperature ... from 90 °C to the atmospheric boiling temperature" (column 4 lines 7-10). Moreover, according to WHEELock, the extraction is not conducted at a pressure sufficient to prevent boiling. Rather; conduction of the extraction at the boiling point is taught (column 7 lines 9-10, and column 5 line 6). If WHEELock does not disclose a hydrothermal wash step, it cannot be obvious to add one to the 2-step process of WAUGH to arrive at the present invention. It is likewise not obvious to take the conditions of WHEELock and raise them (e.g., temperature and pressure) to the hydrothermal conditions as presently claimed, with any predictable result.

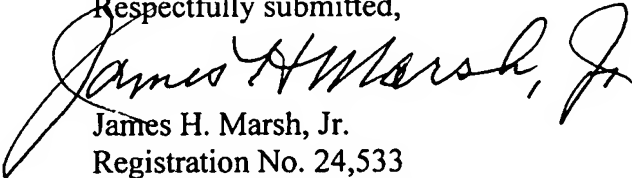
In view of the foregoing, applicant submits that (a) neither WHEELock nor WAUGH discloses step (3) of the present invention, which is thus not obvious given the combination of WAUGH and WHEELock, and (b) in any case, selecting 3 steps from any 2 documents, each

disclosing a 2-step process, is not obvious nor does it have predictable results. The rejection should therefore be withdrawn as regards to the independent claims 1 and 45. And since the rejection of each of the dependent claims relies at its base on the combination of WAUGH and WHEELLOCK, the rejections of all claims dependent from claims 1 and 45 should also be withdrawn.

It is respectfully submitted that the amendments set forth above deal primarily with matters of form and were necessitated by the new grounds of rejection set forth in the FINAL action based on the WHEELLOCK rejection. Since WHEELLOCK had not been specifically applied previously, it was not apparent that certain amendments might be desirable to clarify the claimed subject matter. Accordingly, it is requested that the foregoing amendment be entered pursuant to 37 C.F.R § 1.116(b)(1) and/or (3).

In view of the foregoing amendments and remarks, it is respectfully submitted that the claims remaining in the application for active consideration are free of the cited prior art and that the application is in condition for allowance. Accordingly, favorable action at an early date will be appreciated. If the examiner is of the view that any issue remains unresolved, it is respectfully suggested that applicants' undersigned attorney may be contacted at the telephone number set forth below.

Respectfully submitted,



James H. Marsh, Jr.
Registration No. 24,533
STINSON MORRISON HECKER LLP
1201 Walnut Street
Kansas City, MO 64106-2150
Telephone: (816) 842-8600
Facsimile: (816) 691-3495